

19981216.qrp v01_n307.qrs.981216

Date: Wed, 16 Dec 1998 19:03:18 EST

From: qrp-l@Lehigh.EDU

To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>

Subject: QRP-L digest 1307

QRP-L Digest 1307

Topics covered in this issue include:

- 1) [27386] OHR-500
by Dan Copeland <dcopeland@wwn.net>
- 2) [27387] RE: Backwards Transformers
by "Robert P. Okas" <vintage@best.com>
- 3) [27388] FS: 11-2-10 unbuilt project
by Jim Janack <n2jj@ix.netcom.com>
- 4) [27389] Help-almost qrp
by "Ron A. Kolarik" <RKolarik@compuserve.com>
- 5) [27390] Sierra trade
by "Beaks" <beaks@westco.net>
- 6) [27391] Re: SSB ARRL 10M
by Peter Larsen <larsenp@cadvision.com>
- 7) [27392] Re: Canadian Prov. PQ in 10m Test ??
by Peter Larsen <larsenp@cadvision.com>
- 8) [27393] Re: Stripping enamel wire
by Clay N4AOX <wyn@worldnet.att.net>
- 9) [27394] WTB: TT Model 282 CW Filter
by "Tim Cook" <timcook@erinet.com>
- 10) [27395] Project Suggestion Idea...
by "Greg Newberry" <newberry@cyberhighway.net>
- 11) [27396] Re: Backwards Transformers
by Peter Larsen <larsenp@cadvision.com>
- 12) [27397] Another Pelt.....YAHOO
by Fred Lesnick <flesnick@tbaytel.net>
- 13) [27398] 10 Meter Contest QRP Style:
by "Lawrence T. Owens" <w4dec@dibbs.net>
- 14) [27399] Finally....A PELT!
by tom whalen <whalen@swcp.com>
- 15) [27400] Toroid Wire Stripping & other Re-occurring Threads
by George Gingell <k3tku@u1.abs.net>
- 16) [27401] RE: TT Model 282 CW Filter
by "Ken & Linda Burrough" <ne0c@1st.net>
- 17) [27402] Re: Will antenna tuner improve RX?
by "Todd" <kb4dpf@visi.net>
- 18) [27403] Your opinions on the TT-Kits
by "Rich Dailey, KA8OKH" <ka8okh@som-uky.campuscw.net>
- 19) [27404] re: T-Kits & Elmer 205

- by "Rich Dailey, KA8OKH" <ka8okh@som-uky.campuscw.net>
- 20) [27405] Re: Wonderbar 10m - economical 2 el antenna REVISITED
by DYARNES@aol.com
- 21) [27406] Book
by k5ht@juno.com (George W. Lee)
- 22) [27407] Fox wild ride!
by talljazz@teleport.com (Dan Presley)
- 23) [27408] RE: Backwards Transformers
by "Ed Tanton" <n4xy@mindspring.com>
- 24) [27409]
by "Ed Tanton" <n4xy@mindspring.com>
- 25) [27413] OHR-100 Drift project.
by we6w@juno.com (Ed Loranger)
- 26) [27414] Re: Canadian Prov. PQ in 10m Test ??
by "Brian J Keegan" <brimail@home.com>
- 27) [27415] RE: Toroid Wire Stripping & other Re-occurring Threads
by Chris <c_sieg@conknet.com>
- 28) [27416] Re: Canadian Prov. PQ in 10m Test ??
by "L. B. Cebik" <cebik@utkx.utcc.utk.edu>
- 29) [27417] mini-L, RS PC Boards, " Z " Wire
by n3aaz-qrp@juno.com (John R Kirby)
- 30) [27418] OHR-500 sidetone fix
by "Toru Kato JG1RVN" <jg1rvn@inv.co.jp>
- 31) [27419] Re: Book
by applitech@mcg.net (Claton Cadmus)
- 32) [27420] Ten-Tec 1340 For Sale
by rbcallahan@juno.com (Robert B. Callahan)
- 33) [27421] Parts: M54563P
by Niel Skousen <skousen@srv.net>
- 34) [27422] Re: 11-2-10 kit needed for friend
by w4bws@juno.com (Donald E Sanders)
- 35) [27423] QRP Club
by vlantz@juno.com (Vann G Lantz)
- 36) [27424] Fox: N2SMH On 12/18 UTC
by "Dave Maliniak" <dmaliniak@penton.com>
- 37) [27425] Re: Canadian Prov. PQ in 10m Test ??
by "James C. Owen, III" <owen@piper.eeel.nist.gov>
- 38) [27426] Re: OHR-500 sidetone fix
by we6w@juno.com (Ed Loranger)
- 39) [27427] re: T-Kits & Elmer 205
by "Jim Kortge, K8IQY" <jokortge@cwix.com>
- 40) [27428] Son of FireBall: List Update
by William-McShan@ouhsc.edu (Mike McShan)
- 41) [27429] Re: Schematic Needed
by "Joiner, Randy - LYSBB" <JoinerR@avionics2.robins.af.mil>
- 42) [27430] RE: [CW] cw
by "Ed Tanton" <n4xy@mindspring.com>
- 43) [27431] Re: Canadian Prov. PQ in 10m Test?

- by Laura Denise Halliday <lha@sdr.utias.utoronto.ca>
- 44) [27432] 10M Contest Results
by Brian Kassel <bkassel@dancris.com>
- 45) [27433] Re: Parts: M54563P
by Glen Leinweber <leinwebe@mcmail.cis.McMaster.CA>
- 46) [27434] Hint or Kink: PC Boards
by "Brad Hernlem" <alihernlem@hotmail.com>
- 47) [27435] Bad Propagation last night?
by Ed Loranger <we6w@qsl.net>
- 48) [27436] Extra Fall QRPP
by "Buck, Preston D" <BuckPD@corning.com>
- 49) [27437] Schematic Needed
by David Kidd <ka7ozo@pacifier.com>
- 50) [27438] Re: Canadian Prov. PQ in 10m Test ??
by Bob Patten <n4bp@bc.seflin.org>
- 51) [27439] Re: CW
by DENNISMO@aol.com
- 52) [27440] RE: Extra Fall QRPP
by "Buck, Preston D" <BuckPD@corning.com>
- 53) [27441] Re: RTTY / QRP
by "Mel Evans" <MelGM6JAG@bccscotland.freemove.co.uk>
- 54) [27442] OHR-100 Drift Project.
by Ed Loranger <we6w@qsl.net>
- 55) [27443] Backwards Transformers - THANKS
by Bob Reynolds <breynd@sigg.com>
- 56) [27444] 2m Antenna
by Ron Stark <ku7y@dri.edu>
- 57) [27445] FOX: Team scores (fwd)
by Bruce Rattray <rattray@gpfn.sk.ca>
- 58) [27446] Scope for Sale
by David J Adams <adamsclan@netgate.net>
- 59) [27447] Elmer200: Part 4 Hot Stuff
by Chuck Adams <adams@ticnet.com>

Date: Tue, 15 Dec 1998 18:15:22 -0600
From: Dan Copeland <dcopeland@wwn.net>
To: qrp-1@Lehigh.EDU
Subject: [27386] OHR-500
Message-ID: <00053510933790@wwn.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Ok, I am starting to do the final assembly on my OHR-500. Yes I have wound all the coils. I was just wondering if anyone that has finished theirs has any tips for me on the alignment? Is there anything I should watch for?

72's and back to the soldering iron

Dan

Daniel Copeland KF00V

dcopeland@wwn.net

QCWA Webmaster* ARRL-life member*

QRP-L 1004, ARCI - 9670, OHR 100A-20

<http://www.qcwa.org> | <http://www.dcopeland.com>

"I want to die peacefully in my sleep like my grandfather,
not screaming in terror like his passengers."

Date: Tue, 15 Dec 1998 16:22:47 -0800 (PST)

From: "Robert P. Okas" <vintage@best.com>

To: Denton Bramwell W7DB <Denton@Bramwell.Org>

Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [27387] RE: Backwards Transformers

Message-ID: <Pine.BSF.4.05.9812151607400.25043-1000000@shell114.ba.best.com>

MIME-Version: 1.0

Content-Type: TEXT/PLAIN; charset=US-ASCII

Say WHAT?

It is a not an uncommon practice to connect two like transformers in a back-to-back configuration for the purposes of obtaining AC line isolation. The question posed was what the losses would be from the resulting setup.

The power one can pull from a 25V, 2A secondary is approx. 50W. Figure about 80% transformer efficiency to be conservative. So, $0.8 \times 50W = 40W$ on the isolated 'secondary' (backwards primary). The resistive losses in this secondary will be significant. The best way to determine these losses is to hang various load resistances on the 'secondary' and measure the voltage.

Remember, even though it is isolated from the AC lion, there is still a lethal voltage across the output of your compound transformer. Exercise great care!

72/3,

Bob - W3CD

On Tue, 15 Dec 1998, Denton Bramwell W7DB wrote:

>

>
> >>I seem to remember a lot of ARRL
> schematics with 2 filament transformers
> hooked secondary to secondary in small
> projects. I would like to know if I hooked two
> 25V 2A secondary transformers
> secondary-to-secondary, one primary to 115
> VAC, accounting for losses, what voltage
> and current I could I expect to pull from the
> "free" primary ?<<
>
> You'd have to wait until the smoke cleared to read the meter.....
>
> A 25 V winding, or even two in series, does not have enough inductance to
> prevent large, real currents from flowing.
>
> I now understand the math behind this. In my youth, I empirically confirmed
> it.
>

Date: Tue, 15 Dec 1998 18:45:08 -0600 (CST)
From: Jim Janack <n2jj@ix.netcom.com>
To: qrp-l@Lehigh.EDU
Subject: [27388] FS: 11-2-10 unbuilt project
Message-ID: <199812160045.SAA17224@dfw-ix13.ix.netcom.com>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Too much to do these days to start new projects.

I've got an unbuilt kit with the documents and the Maxon MCB-30 (NIB) for sale for cost plus shipping.

Steve did a super job on this project.

73,Jim N2JJ

Date: Tue, 15 Dec 1998 20:51:33 -0500
From: "Ron A. Kolarik" <RKolarik@compuserve.com>
To: qrp-l <qrp-l@lehigh.edu>

Subject: [27389] Help-almost qrp
Message-ID: <199812152051_MC2-63BB-2334@compuserve.com>
MIME-Version: 1.0
Content-Transfer-Encoding: quoted-printable
Content-Type: text/plain; charset=ISO-8859-1
Content-Disposition: inline
Content-Transfer-Encoding: quoted-printable

Hi gang,

Sorry if this is a repeat, I've been having trouble posting to the list. Recently picked up what looks like a kit built "Audio Sweep/Marker Generator" of course no manual or schematic. This appears to be built from a magazine article 1988-89 vintage from date codes on the pc boards. Time to search the vast memory banks on the list for any info. The unit also has a built in freq counter based on a 74C926. Anyone remember this one? Please respond via private e-mail.

Thanks

Ron Kolarik N0IDT =

Date: Tue, 15 Dec 1998 21:07:44 -0500
From: "Beaks" <beaks@westco.net>
To: "qrp-l" <qrp-l@lehigh.edu>
Subject: [27390] Sierra trade
Message-ID: <001001be2898\$df4a96a0\$d34ff5cd@beaks>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Gang, I am looking to swap my extra Wilderness Sierra for a good HF communications receiver along the lines of an Icom or Kenwood or such. This Sierra has band packs for 30 and 40 meters and the KC-2 keyer/display with the proper front panel. Does 3 watts at 14volts, looks and works very nice. Dont really want to sell the rig but would rather work a swap. Not interested in a "portable" type receiver but rather a good quality desktop unit.
Thanks and please email direct:
beaks@westco.net

Arch NQ8RP

Date: Wed, 16 Dec 1998 02:06:15 +0000
From: Peter Larsen <larsenp@cadvision.com>
To: owen@piper.eeel.nist.gov
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [27391] Re: SSB ARRL 10M
Message-ID: <36771596.A08A74DF@cadvision.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

James C. Owen, III wrote:
> Now for my set-up, and please no flames about power. Corsair II &
> Ameritron
> AL80 @ 750W out to Finco 4 ele monoband @ 47'.

Gee I can only squeeze out 500 watts on ten out of my AL-80A.
But the TH-6 at 72 feet helps.

As you all had fun on ten this last week end... I would like to
remind you all of the Stampede City Award activity day.

Sat. Dec 19. on ten meters. There will be some cw only stations
so listen for them. Also there will be some QRP stations on.

For the prefix hunters I will try to be on ten early as CG6NAO.
QSL via VE6NAO. From about 13:00z to 1:00z Sunday I will be
on as VE6NQ. NQ is a two pointer and NAO is a one pointer.

We will try to have VE6AO, the contest station, active for this event
as well. It is also a two pointer.

Come out and get your ten points.

If you wish I can have your call sign \QRP on the award.

Look for me around 28.310.

--

73 es have fun
Peter
VE6YC D021wc

Date: Wed, 16 Dec 1998 02:15:11 +0000
From: Peter Larsen <larsenp@cadvision.com>
To: fred@ASL.CA
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [27392] Re: Canadian Prov. PQ in 10m Test ??
Message-ID: <367717AF.DD0A3003@cadvision.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Fred Chen wrote:

>
> Then again, Alberta has been often abbreviated Alta instead of AB

Alta. is correct. The AB was forced onto us by this two letter thing.

Thank you Eastern Government. But we don't want to get into that!!

--

73 es have fun
Peter
VE6YC D021wc

Did you hear about the dyslexic Satanist?
He sold his soul to Santa

Date: Tue, 15 Dec 1998 21:17:04 -0500
From: Clay N4AOX <wyn@worldnet.att.net>
To: jjmcd@tm.net
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [27393] Re: Stripping enamel wire
Message-ID: <36771820.39AC@worldnet.att.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

John J. McDonough wrote:

>
> I used to do this, but the last batch of wire I got just laughed at me.
> Dunno if the enamel was especially thick or whether it's changed over the
> years - us gray hairs are often surprised by these little details :-))

> Maybe I used to use my good ol' Weller soldering gun!
>
> 72/73 de WB8RCR <http://users.tm.net/jjmcd/>
> didileydadidah QRP-L #1446 Code Warriors #35

Probably what you observed was polythermaleze insulation, or polyamide or "nylon" which is used to coat magnet wire for high temperature windings -- melts at 450F. There is more and more of this high temp stuff around.

There is an "enamel" formulation that dissolves in hot solder which would be ideal for tinning with a hot iron or solder pot. Yes, the confusing world of plastics has invaded the magnet wire coating business.

72/73,
Clay N4A0X

Date: Tue, 15 Dec 1998 21:20:32 -0500
From: "Tim Cook" <timcook@erinet.com>
To: "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [27394] WTB: TT Model 282 CW Filter
Message-ID: <015e01be289a\$a8c4d8a0\$647f5acf@timcook.erinet.com>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Still looking for a 250hz filter for my paragon. Please email with any information
thanks
Tim
NZ8J

Date: Tue, 15 Dec 1998 19:29:16 -0700
From: "Greg Newberry" <newberry@cyberhighway.net>
To: <qrp-l@Lehigh.EDU>
Subject: [27395] Project Suggestion Idea...
Message-ID: <000401be289b\$e087f140\$0100a8c0@toby>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"

Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hello all,

I hope I'm not out of line here, but a current thread brought up an idea. (Which for me is dangerous.) Along with my love for QRP is my love for old short-wave radios in general. I've got several. Crystal sets as well. I grew up in a small bedroom with a dim desk light, headphones and a short-wave radio. Now the point, how about a QRP-L project in the form of a Pre-selector. I know that a well designed QRP rig and matched antenna might not need it. However it will help out, and do something for all the receive only rigs, short-wave rigs and maybe even crystal radios. Here are some goals:

No Gain or adjustable. Even a loss for selectivity, but no frontend overload.

Match long wire, dipoles, etc to a 50-300, balanced or unbalanced radio antenna connections.

Mute capability if you are using it as a front end to a xmitr/recvr QRP combo.

Jumpers or switches for a wide range of impedance matches.

Receive only, so no Hi-power requirements.

9-volt battery?

Wide enough range to cover AM broadcast?

Gain? Not at the loss of frontend overload. Maybe a switchable gain for weak signals...

Just a thought, but if any of you are like me, and I have several short-wave rigs with the ANT-GND inputs, and always have less than the proper antenna, especially while traveling, this could be handy, simple, and fun....

73's

Greg

WB7DUO

Date: Wed, 16 Dec 1998 02:35:31 +0000

From: Peter Larsen <larsenp@cadvision.com>

To: vintage@best.com

Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>

Subject: [27396] Re: Backwards Transformers

Message-ID: <36771C73.BC29C88D@cadvision.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi All:

> The power one can pull from a 25V, 2A secondary is approx. 50W.
> Figure about 80% transformer efficiency to be conservative. So,
> $0.8 \times 50W = 40W$ on the isolated 'secondary' (backwards primary). The
> resistive losses in this secondary will be significant. The best way

This is not quite right. Most transformers are about 98% efficient.
Here is how you go about it.

Loss= (internal impedance) $\times$ (voltage) internal impedance is usually
in the order of 0.4 ohm for the big 500 KVA jobs. As you are using
much smaller ones it will likely be a bit more.
Iz is caused by eddy currents in the core.

The easiest way to test your Iz is to short out the secondary
and put an amp meter on the primary. Slowly increase the voltage
till you have rated amperage on the primary. This will also give
you rated amperage on the secondary side so no harm is done.
Check your voltage. $V/I=R$. Here is your loss. $R=Iz$.

The out put Primary voltage of your compound transformer will be
about the same as your input primary voltage. What you will be
losing will be some of your voltage regulation as you have doubled
your Iz.

I use to do this for fun in transformer lab in my Line Man training.
The teachers tried to stump me with trick questions.
I passed, and had a lot of fun doing so.

--

73 es have fun
Peter
VE6YC D021wc

Did you hear about the dyslexic Satanist?
He sold his soul to Santa

Date: Tue, 15 Dec 1998 21:55:56 -0500
From: Fred Lesnick <flesnick@tbaytel.net>
To: "qrp-canada@lists.gpfn.sk.ca" <qrp-canada@lists.gpfn.sk.ca>, qrp-l <qrp-
l@Lehigh.EDU>, njqrp <njqrp@njqrp.org>
Subject: [27397] Another Pelt.....YAHOO

Message-ID: <3677213B.194488E6@tbaytel.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Just worked N7CQR at 02:45Z.He was 559 into Thunder Bay,Ontario.Hearing
VE3JC at a 579,nice signal.....Go Northern Lights.....
QRP is truly the best,you can do so much with so little...
73 FRED VE3FAL
QRP BEACON :VA3SBB 28.241mHz

Date: Tue, 15 Dec 1998 21:15:33 -0600
From: "Lawrence T. Owens" <w4dec@dibbs.net>
To: qrp-l@Lehigh.EDU
Subject: [27398] 10 Meter Contest QRP Style:
Message-ID: <367725D5.42A0@dibbs.net>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi Gang,
Here goes my brag sheet again:
Time on: 25 hrs 13 min:
Power output 5 Watts Cw 4.5 watts SSB

Mode	QSOs	Points	Mults	
CW	282	1132	86	
SSB	186	372	57	
Total	468	1504	143	Score 215,072

Great contest and good conditions. I know this isn't a contest reflector but I am interested in see how the other QRP operations went. I had a lot of fun and bettered my last years QSOs by 157. Going to shoot for 500 next year. Was not able to hold any sustained runs and when I was able to call CQ received very few answers, so mostly it was hunt and pounce

Bob , N4BP was able to work me with great difficulty on his part, then with the beam NW nothing heard from him with beam on South FL. Thanks Bob.

Ron (KU7Y) and JIM (N0UR), It was great to work you both and you both had super QRP signals.

Equipment Used in Contest:

ICOM 735 Running 5 Watts

Cushcraft A4S Triband Antenna at 70 Ft.

OHR WM2 Wattmeter in line to monitor power output.

Contest Program NA10

Packard Bell 286 computer.

I hope that all of you that entered the contest had as much fun as I did. This 10 meter contest and the ARCI Sprints are my favorites.

Please send in your logs. You just might get some nice wallpaper.

Happy Holidays to everyone and a Great New Year.

Larry (W4DEC)

Theodore, AL (Near Mobile)

Date: Tue, 15 Dec 1998 20:34:09 -0700

From: tom whalen <whalen@swcp.com>

To: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>

Subject: [27399] Finally....A PELT!

Message-ID: <36772A31.7764@swcp.com>

MIME-Version: 1.0

Content-Type: text/plain; charset=us-ascii

Content-Transfer-Encoding: 7bit

Content-Transfer-Encoding: 7bit

Hello Fellow QRPer's!

Being on vacation this week has allowed me to finally get a pelt! Worked N7CQR about an hour into the test, and then went down to 7.040 and called CQ. K7TQ Randy, in Moscow ID. came back to my call and we had a nice qso till this RTTY dude wiped us out! Finally Randy and I signed, and then right after that K1MG Mike, gave us both a call and we had a nice 3 way qso, again the RTTY dude showed his teeth...He would come and he would go...Anyhow had a nice qso with these fine cw op's!

Guess thats the end of the fox chasin' for me this season. Usually work evening shift and puts me out of the action. Trying to chase the fox from a locomotive has not been successful...

Good job N7CQR, you even hung in there with that dx station calling cq over the top of you...think it was a CM2...

72 to all, and it was fun....again

Tom WB5QYT..."Have spud and bug will travel!"

Date: Tue, 15 Dec 1998 22:54:19 -0500 (EST)
From: George Gingell <k3tks@u1.abs.net>
To: QRP List <qrp-l@Lehigh.EDU>
Subject: [27400] Toroid Wire Stripping & other Re-occurring Threads
Message-ID: <Pine.BSI.3.96.981215223730.12739A-1000000@u1.abs.net>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

After reading Mike's comments, I could not help myself Here is my \$.02

There appears to be at least Three Preferred methods to remove the insulation from Enameled Magnet wire as used on Toroid coils.

1. Burn it off with match, lighter, or heat & solder on the end of your soldering iron or gun.
2. Scrape it off with knife, emory/sand paper or steel wool. Exacto knife is tool of choice for many, but can be very dangerous! Technique is everything. :^) Also care not to nick the wire is very important.
3. Last but not least is the use of Chemical wire strippers. One good product is "STRIP-X" sold by GC Electronics 10-2602 I paid \$ 9.17 for a 2 FL Oz bottle last year.

A companion product is 10-3702 "POLYSTYRENE Q-DOPE" NO, I am not trying to restart that thread :^)

I have used all three methods depending on the wire available. Each has their use for various situations. I find that the Chemical takes a bit longer but gives the best results with old type enameled wire and when small gauge wire is being used. Scraping # 30 is almost asking for trouble for example.

Merry Christmas and Happy New Year kit building..

Sir George, The First :^)

72 ES
QRP DX TU (C) 1986, G. "Danny" Gingell, K3TKS@ abs.net
QRP A.R.C.I. Net Manager and Board of Director Member.
Gingell & Company, Ltd. Small Business Telephone Systems

George D. Gingell, Jr. 3052 Fairland Road, Silver Spring, MD 20904-7117
Maryland Milliwatt Club QRP Reference Library, (301)572-6789
Maryland Milliwatt Club Founder and Trustee of Club Station - WQ3RP -
Grid Square FM19mb 76.94 W - 39.06 N Silver Spring, MD 20904 QRPea.A.

Date: Tue, 15 Dec 1998 23:01:31 -0500
From: "Ken & Linda Burrough" <ne0c@1st.net>
To: "QRP-L" <qrp-l@Lehigh.EDU>
Subject: [27401] RE: TT Model 282 CW Filter
Message-ID: <001501be28a8\$fe311980\$4e06f0d1@ne0c.1st.net>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Tim wrote>>Still looking for a 250hz filter for my paragon.

Tim I got my 250hz CW filters from Ten-Tec. My Omni 6 Plus has two 250hz
and two 500hz in it and they are brick walls.

Ken/ne0c
Flushing, Ohio
QRP-L 1524

Date: Tue, 15 Dec 1998 23:05:41 -0000
From: "Todd" <kb4dpf@visi.net>
To: <mahlon.r.haunschild@ac.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [27402] Re: Will antenna tuner improve RX?
Message-ID: <00a701be287f\$72015480\$54c608d1@amy>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

My TS-440s w/at apparently does this. I tend not to use the internal tuner,
instead relying on my external matching network. I had not really thought
much about it, but now I will pay closer attention and check the receive
difference between the internal and external tuners.

Todd
KB4DPF

----- Original Message -----

From: <mahlon.r.haunschild@ac.com>
To: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Sent: Tuesday, December 15, 1998 3:10 AM
Subject: Re: Will antenna tuner improve RX?

<snip>

>I was shopping for HF gear roughly eight or ten years ago, roughly when the
>first solid-state rigs with built-in automatic antenna tuners came out, and
>noticed that the Kenwood designs switched the tuner out of line on receive,
>switching it back in line for transmit

Date: Wed, 16 Dec 1998 04:47:16 -0500
From: "Rich Dailey, KA8OKH" <ka8okh@som-uky.campuscw.net>
To: qrp-l@lehigh.edu
Subject: [27403] Your opinions on the TT-Kits
Message-ID: <3.0.16.19981216044632.2fd3b8@som-uky.campuscw.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I would like to hear comments from owners of the
Ten Tec kit rigs (1340, 30 ,20) regarding performance
of these radios. How do they compare to the OHR's,
Norcal's, Small Wonder's, or MFJ 90xx series? Would
they make a good bang around camping rig, or are they
too pretty for the field?

I'm going to be in Sevierville, TN this Friday, and was
planning on a visit to the shops. I know I'll come away
with something to build. Xmas bonus and all that, heh,heh.

#1 (i.e. K5F0), what do you think about your 1340?

tu de Rich

Happy Holidays from
Rich Dailey, KA8OKH <ka8okh@som-uky.campuscw.net>
The KA8OKH / KB4NPI Web - <http://www.qsl.net/ka8okh>

Date: Wed, 16 Dec 1998 05:00:04 -0500
From: "Rich Dailey, KA8OKH" <ka8okh@som-uky.campuscw.net>
To: qrp-1@lehigh.edu
Subject: [27404] re: T-Kits & Elmer 205
Message-ID: <3.0.16.19981216050000.2ddfe962@som-uky.campuscw.net>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I don't wish to get a "this radio is better than radio x" thing going. I just would like to know how you rate the price/performance/manual/assembly time/fun factor of this radio.

re: Elmer 205 - before I download, What OS is SPICE written for? Win95 only?

Thanks,
Rich

Happy Holidays from
Rich Dailey, KA8OKH <ka8okh@som-uky.campuscw.net>
The KA8OKH / KB4NPI Web - <http://www.qsl.net/ka8okh>

Date: Wed, 16 Dec 1998 00:01:41 EST
From: DYARNES@aol.com
To: lbbarley@feist.com, qrp-1@lehigh.edu
Subject: [27405] Re: Wonderbar 10m - economical 2 el antenna REVISITED
Message-ID: <f1441f9b.36773eb5@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi all,

I may be wrong, but I think the "original" wonderbar antenna article was authored by an acquaintance of mine from Albuquerque, Ralph Rosenbaum. I can't remember Ralph's call, but we used to live fairly close to each other. This was in the middle 50's, and it appeared in QST. I would guess around

1957 plus or minus a year. Anyway, if you have old QST magazines (or CD's) you might want to look it up and get some additional info. The antenna was pretty effective according to Ralph.

72 de Dave W7AQK

Date: Wed, 16 Dec 1998 01:04:00 EST
From: k5ht@juno.com (George W. Lee)
To: qrp-1@lehigh.EDU
Subject: [27406] Book
Message-ID: <19981216.000339.2591.0.k5ht@juno.com>

Can anyone tell me where I can get a copy of "Reflections" by Walter Maxwell? Have tried amazon.com and barnesandnoble.com with no positive results. Thanks for any help as I think it is out of print and may be the proverbial needle in a haystack.

73, George KJ5C

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Tue, 15 Dec 1998 22:25:05 -0800
From: talljazz@teleport.com (Dan Presley)
To: qrp-1@LeHigh.edu
Subject: [27407] Fox wild ride!
Message-ID: <v01530503b29d00d1abfc@[216.26.2.21]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I feel like I was hit by a '4-8-8-4' (you railroad guys will know what that is!); in other words, a mighty big steam engine! Thanks for everyone's patience while my memory keyer quit, and my paddle decided to go intermittent. Also, plenty of QRM from spanish ssb, rtty and a couple of cq'ers! I learned a lot about what I will do different next time. Conditions were hot up until almost exactly 03:15, when a 'big curtain' descended, and everything ground to a halt. Up until then I had about 45 Q's, and only 6 or 7 more until 0400. It probably didn't help that I tried to QSY around to avoid qrm, when it was mostly funny propagation. Looks like my total was 53, and I will post a log ASAP. Thanks again, hunters! It was very disciplined with just a few exceptions-can't wait for my next turn.

Dan N7CQR

Date: Wed, 16 Dec 1998 01:44:48 -0500
From: "Ed Tanton" <n4xy@mindspring.com>
To: "Low Power Amateur Radio Discussion" <qrp-1@Lehigh.EDU>
Cc: <Denton@Bramwell.Org>
Subject: [27408] RE: Backwards Transformers
Message-ID: <002801be28bf\$9333c260\$01010101@n4xy>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Well good!!! THIS explains why the couple of times I played with this, the
xfmrs ran hot-even w/o a load. I knew (from the temps) that it was not
really a good thing to do, but sure didn't know why. THANKS Denton!

Ed Tanton N4XY

///snip
> schematics with 2 filament transformers
> hooked secondary to secondary in small
> projects.
///snip

>
> Denton Bramwell W7DB
>
> You'd have to wait until the smoke cleared to read the meter.....
>
> A 25 V winding, or even two in series, does not have enough inductance to
> prevent large, real currents from flowing.
>
> I now understand the math behind this. In my youth, I empirically
confirmed it.

Date: Wed, 16 Dec 1998 01:33:00 -0500
From: "Ed Tanton" <n4xy@mindspring.com>

To: "Homebrew Reflector" <homebrew@qth.net>
Cc: "Randy Tudor" <rtudor@att.net>, "WB4GNT Allen Bond" <mgs@avana.net>, "Vintage Solid State List" <VSS@LISTSERV.TEMPE.GOV>, "W4UOC Tom Koch" <W4UOC@aol.com>, "W4OCW" <w4ocw@juno.com>, "R-390" <r-390@qth.net>, "QRP-L Reflector" <qrp-l@Lehigh.EDU>, "National reflector" <national@qth.net>,
Message-ID: <002501be28bd\$ed277a70\$01010101@n4xy>
MIME-Version: 1.0
Content-Type: text/plain;
charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi People... I just found a GREAT URL page listing Surplus Component Dealers:

<http://www.city-net.com/~bbamont/elcats.html>

I am in NO way connected to anything related to this, except that I certainly like to have whatever sources are available when building something.

73

Ed Tanton N4XY EMAIL: n4xy@mindspring.com
189 Pioneer Trail
Marietta, GA 30068-3466 TEL: (770)579-3933

INTERESTS: *CW (99.5%) *QRP (QRP-L# 758)
*BoatAnchors *Test Equipment *Photography

~~~~~  
"Think you can, think you can't:  
  either way you're right!"    Henry Ford  
~~~~~

Date: Wed, 16 Dec 1998 02:21:19 EST
From: we6w@juno.com (Ed Loranger)
To: qrp-l@lehigh.edu
Subject: [27413] OHR-100 Drift project.
Message-ID: <19981215.231013.4775.0.we6w@juno.com>

Ok gang. It isn't as difficult as I thought, but it takes a little thinking to head in the correct direction when nailing down the vfo drift problem.

Current situation: Rig is on the spectrum analyzer

having just been brought in from a 35 degree temperature garage to the 70 degree house. I immediately connected up the Spectrum analyzer thru a 10:1 O-scope probe and monitored the 16 MHz osc. output port.

After about 7 minutes it had stabilized at -215 Hz of initial cold start frequency. I then turned on the house heater for a gentle warming without focusing on any specific components. The rig drifted down another 60 Hz.

It has been now about 1 full hour and the heater has cycled twice and no major shift in the VFO Frequency. Basically it is sitting at +/- 45 Hz with a 10 degree temperature change in the house.

I find that the toroid reacts immediately to temperature changes but the negative temperature coefficient capacitors catch up a little later so there is a little delay in the correction if temperature change is fast (Like in sunlight).

What I found Out: ALL 3 of the supposed NP0 (NP-Zero) capacitors in the VFO were in fact changing capacitance with temperature. Each one of these capacitors was carefully isolated and warmed by breathing thru a straw. The vfo drifted downward in frequency. Also, the stock 1000 pF polystyrene capacitor was changed to a -150 temp compensated capacitor. I replaced the stock capacitors one at a time until the compensation appeared to be significant.

Before changing any components, I first verified the stock component affected the VFO Frequency when heated. I then verified I wasn't heating nearby components and getting a false reading. I then removed the component and replaced it with a -150 temp. compensating Polystyrene unit. I then verified the new capacitor changed the VFO frequency higher when warmed.

I noted that the improvement was not enough and repeated the process until 3 capacitors of the 4 were replaced.

I will most likely change the 4th one tomorrow.

This kind of work is actually getting to be fun!

If I get a chance in the future, I will try to locate some -500 temp. compensating capacitors or whatever the next standard value up is. That toroid core in the

vfo is a WHACKY/Screwey/bizarre monster. Anything that jumps as far as 330 Hz with a 1 second breath of warm air is one of those "learning Opportunities" :)

I'll replace the last capacitor tomorrow and get back to other projects for awhile.

All for now. Wish it was a 'mo-bettah' report but should be useful to a few out there.

Bottom line: Verify the NP-0 capacitors are working properly. mine didn't.
-Ed

72, Ed WE6W QRP-Z#106 <http://www.qsl.net/we6w>
Enjoying Ham Radio every day! Santa Rosa, CA.

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Wed, 16 Dec 1998 05:44:51 -0500
From: "Brian J Keegan" <brimail@home.com>
To: "QRP-L" <qrp-l@lehigh.edu>
Subject: [27414] Re: Canadian Prov. PQ in 10m Test ??
Message-ID: <003c01be28e2\$bf08d6a0\$12960318@cc1016490-a.vron1.nj.home.com>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

If you have NA or CT you can edit the section and DX files changing the PQ designator to QC. I did. Makes for less confusion as most VE ops seem to be using QC nowadays.

Brian KF2HC

Date: Wed, 16 Dec 98 06:23:51
From: Chris <c_sieg@conknet.com>
To: qrp-l@Lehigh.EDU
Subject: [27415] RE: Toroid Wire Stripping & other Re-occurring Threads

Message-ID: <Chameleon.913807623.c_sieg@mecs.conknet.com>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; CHARSET=US-ASCII

Hi All,

I called GC electronics yesterday to find out about StripX. They said the product was "environmentally unsafe", and they no longer produced it. So you will need to scratch this technique from the wire stripping list.

-Chris

Name: Chris WA3LDI
E-mail: Chris <c_sieg@conknet.com>
Date: 12/16/98
Time: 6:23:51 AM

Date: Wed, 16 Dec 1998 07:20:42 -0500 (EST)
From: "L. B. Cebik" <cebik@utkux.utcc.utk.edu>
To: Peter Larsen <larsenp@cadvision.com>
Cc: Low Power Amateur Radio Discussion <qrp-1@Lehigh.EDU>
Subject: [27416] Re: Canadian Prov. PQ in 10m Test ??
Message-ID: <Pine.GS0.3.96.981216064727.1403F-1000000@moe.cas.utk.edu>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

>Alta. is correct. The AB was forced onto us by this two letter
>thing.

Some folks in the 50 likely do not remember the days of non-2-letter abbreviations for many states.

My long-ago home state used to be Conn, which described what Yankee peddlers used to do, but now is a logging program (CT).

Mass was the home of heavy thinkers at Harvard and MIT, but now cries for mother (MA).

Ore sounded like a mining state until it became undecided (OR).

Miss is the feeling toward those magnolias and julips, but the state was

taken over by feminists (MS).

Del was a nice person (only active ham in the state), but now if you ask "Where are you from," you hear "DE" and have to say, "That's what I just asked."

There used to be "Big MO" and later "little MO" and also just plain MO, which some say still is.

Everyone from those idyllic islands has always known how to laugh in CW at us Winter-frozen folk.

Folks attending the University of Texas or the University of Tennessee live at but not in UT.

In the changeover, the modest people of Maine acquired an ego (ME) but the Sooners are still OK.

Certain mid-westerners are surprised that folks cannot spell a 4-letter name (OH?)

The transition for the Yellowstone Park state is really a plaintive question to the heavens: Wyo-WY?

The French think at least one state has been consistent in its near Rocky Mountain changeover: Mont-MT

And, my current home state, Tennessee, which once was spelled Tenasai (among other ways), never could and still cannot spell 10-10: Tenn-TN.

Sorry to get carried away, but did not want the Canadian members of the list to think that their mandated transition to 2-letter provinces was a burden to them alone. Of course, as a stateside-centric individual, I still think that URLs ending in .ca must be in California.

Happy holiday season--with a little harmless nonsense tossed in.

-73-

LB, W4RNL

Date: Wed, 16 Dec 1998 08:13:29 -0500
From: n3aaz-qrp@juno.com (John R Kirby)
To: qrp-1@Lehigh.EDU

Subject: [27417] mini-L, RS PC Boards, " Z " Wire
Message-ID: <19981216.081452.-116373.0.n3aaz-qrp@juno.com>
MIME-Version: 1.0
Content-Type: text/plain
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

>>RE: The RS 279-149A PC Board
>>
>>Since the holes are not plated through, use the "Z" wire technique
>>where foil is required on both sides of the board, did same, no
>problem.
>>
>
>Please post an elaboration of this to the list has this
>something to
>do with the mark of Zoro? :-)
>

Yes, in the since that a piece of scrap wire forms the 26 th letter, Z
(dah dah dit dit).

Some circuits require "track" or "foil" on both sides of a circuit board
at the same voltage level or ground potential. In that case a "plated
through hole" (factory installed metallic sleeve) is used to make
continuity to the opposite side.

"Z wire" is a technique (installed on the workbench) to bring continuity
to the other sides of a circuit board where plated through holes are not
available (or have been damaged in the field :).

Wire is passed through that hole in the form of an L (dit dah dit dit)
then bent to a Z and soldered on both sides.

John
N3AAZ

.

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Wed, 16 Dec 1998 22:29:07 +0900
From: "Toru Kato JG1RVN" <jg1rvn@inv.co.jp>
To: "QRP-I ML" <qrp-1@Lehigh.EDU>
Subject: [27418] OHR-500 sidetone fix
Message-ID: <199812161328.WAA27710@inv.co.jp>
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hello this is JG1RVN Toru in Tokyo.

Some OHR-500 user may be find that at full power out
put and audio filter on, sometimes sidetone becomes unstable.

I thought that it was r.f. interference so I put many many
bypass capacitor (using 102=1000pF), but in vain. Wooooo!

Every morning I got up, I remind of OHR-500 sidetone
and even it appeared in my dream when I was z.z.z.z.z.z.z....

After 3 night passed, finally I found how to fix it.
Please try fix OHR-500's sidetone as follows...

Add 473 (0,47 micro F) capacitor between C208 and SW200.
You can solder 473 capacitor between SW200 #1 terminal
and ORG/BLK line.
(If you don't have 473 capacitor, you can use 104 capacitor.)
It will cut unwanted (DC=perhaps caused by R.F.I) signal from
U200:B (TL082ACP op amp).

Now sidetone signal becomes good tone till AF-gain 85%
while full TX power and AF-filter ON.
IF AF-gain increases 85-100%, sidetone gradually getting worse,
including some unwanted tone noise in it, but I think almost
no problem for CW operation.

I hope your OHR-500 will working well.
72 from Tokyo.
(Sorry bad english as I majored in Law at univ, not english...)

Toru Kato JG1RVN
jg1rvn@inv.co.jp

Date: Wed, 16 Dec 1998 07:17:15 -0600
From: applitech@mcg.net (Claton Cadmus)
To: <k5ht@juno.com>, "Low Power Amateur Radio Discussion" <qrp-l@Lehigh.EDU>
Subject: [27419] Re: Book
Message-ID: <007701be28f9\$061108e0\$a10a5e2c@groucho>

George and all,

Reflections is out of print. There was mention on our MNQRP 2 meter chat session last Sunday that it will be published again via World Radio. I do not know if this is true, perhaps check their web site.

You might try Powells <http://www.powells.portland.or.us/> , they specialize in out of print and technical books.

Hope this Helps,

73 de KA0GKC Claton Cadmus

cla@mcg.net

MNQRP #1

Minnesota QRP'ers we're looking for you!

Email me or visit this page <http://www.qsl.net/mnqrp>

Date: Wed, 16 Dec 1998 08:04:28 -0600
From: rbcallahan@juno.com (Robert B. Callahan)
To: Qrp-L@lehigh.edu
Subject: [27420] Ten-Tec 1340 For Sale
Message-ID: <19981216.080430.3846.0.RBCallahan@juno.com>

Selling my Ten Tec 1340 T-kit for \$75.00. Will consider trading for a 30 meter SST. Works very well and was built by myself about a year ago. Interested? give me a buzz at: rbcallahan@juno.com
Bob Callahan KC5T Qrp-L #1792

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Wed, 16 Dec 1998 07:36:54 -0700

From: Niel Skousen <skousen@srv.net>
To: qrp-l@lehigh.edu
Subject: [27421] Parts: M54563P
Message-ID: <v04003a02b29d752ed38d@[12.7.216.14]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Gang,

anyone know the proper sub for a Japanese M54563P ? Its a decoder/driver
which decodes the band selection in my FT747....

Fixing the 747, and this guy is not giving me band select drive for 40m.
Gotta get 40m back since the FT757 NT Fox rig is boxed to go to a new home
(another Future NT Fox too !)

TNX Niel

Niel Skousen : WA7SSA skousen@srv.net
Idaho Falls, ID QRP-L.119 fr DN33wm

Date: Wed, 16 Dec 1998 08:38:48 -0500
From: w4bws@juno.com (Donald E Sanders)
To: William-McShan@ouhsc.edu
Cc: qrp-l@Lehigh.EDU
Subject: [27422] Re: 11-2-10 kit needed for friend
Message-ID: <19981216.093524.3670.0.w4bws@juno.com>

Hi QRP-Lers, I have a Maxon MC 30 and need the 11-2-10
kit to put it on 10 am. I would appreciate anyone who decides
not to build the kit to let me purchase it.
I would consider the info with schematic and parts info also
so I may duplicate the unit if no kit is available. Please e-mail
direct.

Thanks

Donald Sanders W4BWS
694 E. Eau Gallie Blvd. Satellite Beach, FL 32937
407-779-0222 Fax 407-779-0830
W4BWS@juno.com
My favorite QRP rig glows in the dark

On Tue, 15 Dec 1998 09:52:40 -0600 William-McShan@ouhsc.edu (Mike McShan)
writes:

>Hi gang, I told a ham friend who works at my local Radio Shack
>about the 11-2-10 project. He was very interested and said that
>he would put aside one the RS CB units he had in stock to build
>the 11-2-10. I then explained to him that the kits had been sold,
>so he asked me to post a note to QRP-L to see if anyone who
>had purchased the kit might be willing to part with it.
>He'll pay the kit price plus the additional shipping to OKC.
>
>So, if anyone out there has bought one of Steve's kits and now plans
>not to use it, then please drop me line at William-McShan@ouhsc.edu.
>I think my friend is a potential convert to QRPing and building...
>
>72,
>Mike N5JKY
>Edmond, OK
>
>
>

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Wed, 16 Dec 1998 08:35:40 -0600
From: vlantz@juno.com (Vann G Lantz)
To: qrp-l@Lehigh.EDU
Subject: [27423] QRP CLub
Message-ID: <19981216.083541.12462.2.VLantz@juno.com>

I am looking for a QRP club that is in or near west central Alabama.

If not, is there an internet club that I can join, AND be active in?

Thanks all!

Vann Lantz

KF4QHJ, AL

QRP-L #1790

VLantz@Juno.Com

"If there is no God, then who pops up the next Kleenex in the box?"

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Tue, 15 Dec 1998 22:00:39 -0500
From: "Dave Maliniak" <dmaliniak@penton.com>
To: qrp-1@lehigh.edu
Subject: [27424] Fox: N2SMH On 12/18 UTC
Message-ID: <852566DC.00516F5A.00@mail.penton.com>
Mime-Version: 1.0
Content-type: text/plain; charset=us-ascii
Content-Disposition: inline

The last fox of the Fall season will be me... David, N2SMH... at 0100 UTC on Friday, December 18. That's 8 pm Eastern time on the night of Thursday, December 17 for the UTC-challenged. ;-)

As do most Foxii, I'll try to stake out a position somewhere in the area of 7.041 to 7.043 or so. The rig will be my trusty Sierra with about 3 Watts of output and the antenna will be a 40-meter inverted V constructed and temporarily installed specially for the occasion. It's fed with 300-ohm Wireman window line (good stuff!) and I should have the apex at about 50 feet. It'll be hung so that it's facing approximately west-southwest and east-northeast. This very same setup was good for over 40k points and about 25 SPCs in the Homebrew Sprint a weekend or two ago so I think it gets out OK.

My code speed is good to around 22 to 23 wpm or so... please be gentle and patient with me. I'll probably have the KC-2 set for 18 or 20 wpm to start myself. I know I'll be pumped full of adrenaline for at least the first little while so I can't say exactly what I'll send the first few hounds. Jabberwocky, perhaps? I'm sure that I'll settle into some kind of rhythm eventually.

The Sierra's RIT works fine and will be in use, so you might want to spread out a little bit. I also would ask your cooperation in sending your call once and only once after I complete an exchange.

Obviously, I want to work as many of you as possible. Remember Rule #1!!! See you all tomorrow night.

72,

David N2SMH
Glen Rock, NJ (northern NJ about 15 miles northwest of Times Square, NYC)

Date: Wed, 16 Dec 1998 10:07:23 -0500 (EST)
From: "James C. Owen, III" <owen@piper.eeel.nist.gov>
To: qrp-1@lehigh.edu, brimail@home.com
Subject: [27425] Re: Canadian Prov. PQ in 10m Test ??
Message-ID: <36449.owen@piper.eeel.nist.gov>

In message Wed, 16 Dec 1998 05:44:51 -0500,
"Brian J Keegan" <brimail@home.com> writes:

> If you have NA or CT you can edit the section and DX files changing the PQ
> designator to QC. I did. Makes for less confusion as most VE ops seem to
> be using QC nowadays.

>
> Brian KF2HC

>
Nope, I think you're wrong on this one Brian, at least the sections. You're correct on the change to the DX files. Maybe you have a newer version than me. I use NA on a DOS machine DOS 6.1 and my version of NA is I think 6.0. It's about 8 years old. I was having this problem with the sections as AB on my section sheet is AT. I tried editing the sections and nothing happened. I then read the instructions (maybe I should have done this first?) and it said that the sections.mlt file was used only for the 160M and sweepstakes contest. SO this means that the sections for the other contest are imbedded in the NA.EXE program and I can't easily change them. I got around this in the case of AB by using AT during the contest and at the end after NA wrote the log info to K4CGY.LOG, which is the file that goes to ARRL, I edited this file to AB.

If any of you can help in changing sections for the 10M contest in NA for the older DOS program please let us know.

72 Jim K4CGY qrp-1 #72

Date: Wed, 16 Dec 1998 10:37:28 EST
From: we6w@juno.com (Ed Loranger)
To: jg1rvn@inv.co.jp
Cc: qrp-1@Lehigh.EDU
Subject: [27426] Re: OHR-500 sidetone fix
Message-ID: <19981216.072616.4903.2.we6w@juno.com>

On Wed, 16 Dec 1998 22:29:07 +0900 "Toru Kato JG1RVN" <jg1rvn@inv.co.jp> writes:

>Hello this is JG1RVN Toru in Tokyo.
<snip>

>Please try fix OHR-500's sidetone as follows...

Great Job Toru. It is posts like these with real and useful information that make this qrp-l list a great place to be.

Good Job Toru!

72, Ed WE6W QRP-Z#106 <http://www.qsl.net/we6w>
Enjoying Ham Radio every day! Santa Rosa, CA.

You don't need to buy Internet access to use free Internet e-mail.
Get completely free e-mail from Juno at <http://www.juno.com/getjuno.html>
or call Juno at (800) 654-JUNO [654-5866]

Date: Wed, 16 Dec 1998 11:20:27 -0500
From: "Jim Kortge, K8IQY" <jokortge@cwix.com>
To: ka8okh@som-uky.campuscw.net
Cc: qrp-l@lehigh.edu
Subject: [27427] re: T-Kits & Elmer 205
Message-ID: <3.0.1.32.19981216112027.00706d28@mail49.cwix.com>
MIME-version: 1.0
Content-type: text/plain; charset="us-ascii"

At 05:00 AM 12/16/98 -0500, you wrote:

>
>re: Elmer 205 - before I download, What OS is SPICE
>written for? Win95 only?

>
>Thanks,
>Rich

>
Rich....I fired it up under Windows 98 and it seems to run just fine. Didn't put it through it's paces though, so there might be a wart or two. :-)

72....Jim, K8IQY

Date: Wed, 16 Dec 1998 10:45:24 -0600
From: William-McShan@ouhsc.edu (Mike McShan)
To: qrp-l@Lehigh.EDU
Subject: [27428] Son of FireBall: List Update
Message-ID: <v01540b00b29d8ca2c896@[157.142.56.167]>

Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

Hi Gang,

Here is the current order list for the FireBall 28.060 MHz custom oscillators. Briefly, since I'm still getting questions, these units are self-contained oscillators for the 10M QRP calling frequency. Only 3-4 external components are required to get them on the air as a 50 mW QRPP transmitter. But, best of all, they are compatible with the neat new kit from the NJ-QRP Club, the Jersey FireBall 40 (see <http://www.njqrp.org/fireball40/index.html>). The price looks like it will be \$6.50 for a single unit with shipping. I will post the final cost tomorrow, since some people have ordered more than one unit (this means I have to sit down and actually figure it all out :-)). I will contact DX hams directly to work out the shipping details.

Thanks and 72,
Mike N5JKY

P.S. I am still accepting orders or changes until tomorrow PM (5 PM CST). Please contact me at William-McShan@ouhsc.edu if you are interested.

Changes and additions are marked with an asterisk. The list is sorted by however MS Word's table function sorted the callsigns. :-)

Name	Call	Number ordered
Frank Henrikson		2
Roger K Bassett		2
dave	ab5pc	2
Vic	AB6SO	1
Bob	AB7ST	1
Andreas	AD6FQ	1
Walter	AG5P	3
Jon	ea2sn	3*
Joel	K1QM	1*
George	K3TKS	2
John	K5JS	2*
Oscar	K5UBS	1*
Kaye	K8GZ	2
Steve	K8IDN	2*
Bruce	KB0PZD	2*
Clyde	KB4CUQ	1
Mike	KB90CE	1
Ed	KC4MHM	1
Rick	kf4ar	2
Mac	KF4KSM	2*
Bruce	KL7H	2*

Wes	N0IHM	1
George	N2APB	2*
Robert	N2LO	2
Bill	n2wf	1
Al	N2ZHS	2
Alan	N3BJ	1
Scott	n3byy	1
Bart	N5WL	2
Ralph	N7RI	1
Bruce	N7RR	1
Jerry	NR5A	1
Earl	VE3AB	1*
John	VE3JC	1*
Lee	w0vt	2
John	W2IV	1
Karl	W5QJ	2*
Brian	W5VBO	1
Mike	W8DN	1*
Joe	W8RIK	1
Vince	WA2ECP	1
Charlie	WA5KRF	2
Mike	WA8MCQ	4*
Keith	WB2VUO	2*
Rick	Wz2t	1

Date: Wed, 16 Dec 1998 12:14:28 -0500
 From: "Joiner, Randy - LYSBB" <JoinerR@avionics2.robins.af.mil>
 To: "'qrp-1@lehigh.edu'" <qrp-1@lehigh.edu>
 Subject: [27429] Re: Schematic Needed
 Message-ID: <AD001062E6EFD111AB4A00805F9F46A7544B04@mustang>
 MIME-Version: 1.0
 Content-Type: text/plain

Thank you very much for all those who responded to my request for help in obtaining a schematic with/without manual. The response was great and I've had several good offers to copy one. I've already emailed those whose help I decided to accept, basically the first respondents. Thank you all once again for your help and offers. This is really a great group of folks!!!!

Randy WD4DSX

Date: Wed, 16 Dec 1998 12:15:33 -0500
From: "Ed Tanton" <n4xy@mindspring.com>
To: "Stanford W. Moore" <Freelander@chickasaw.com>
Cc: "QRP-L Reflector" <qrp-l@Lehigh.EDU>, "CW Reflector" <cw@qth.net>
Subject: [27430] RE: [CW] cw
Message-ID: <005e01be2917\$b07421a0\$01010101@n4xy>
MIME-Version: 1.0
Content-Type: text/plain;
 charset="Windows-1252"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi Stan... you *** OUGHT *** to be able to find it almost anywhere when that's what YOU are sending... reality is that your best bet is the "Novice" sub-bands... however I will add two more places: 1) anywhere you want to meet me-I'll work with you cheerfully; and 2) from ~ 7035-7055 kHz, since the QRP folks hang out there, and they are pretty good about a QRS.

> -----Original Message-----

> Stanford W.Moore

> Sent: Wednesday, December 16, 1998 8:48 AM

> To: cw@qth.net

> Subject: [CW] cw

>

>

>

> Where would you find 5wpm code? On what bands and frequencies? Thanks.

> cw@qth.net

>

> 73 from KD5FES.

>

73/72 (QRP version of 73)

Ed Tanton N4XY EMAIL: n4xy@mindspring.com

189 Pioneer Trail

Marietta, GA 30068-3466

TEL: (770)579-3933

INTERESTS: *CW (99.5%) *QRP (QRP-L# 758)

*BoatAnchors *Test Equipment *Photography

~~~~~  
"Think you can, think you can't:

  either way you're right!"    Henry Ford

~~~~~

Date: Wed, 16 Dec 1998 12:28:47 -0500 (EST)
From: Laura Denise Halliday <lha@sdr.utias.utoronto.ca>
To: qrp-l@lehigh.edu
Subject: [27431] Re: Canadian Prov. PQ in 10m Test?
Message-ID: <Pine.SOL.3.92.981216121307.14677A-100000@madrox>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Who, me? :-)

As an abbreviation for a province, PQ stands for
Province du Quebec, the place where license plates
on cars say "Je me souviens" ("I remember").

PQ also stands for Parti Quebecois (pronounced like
"partsi" in Quebec French), the current provincial
government. That's another matter, though if they get
their way it may have DXCC implications...

Canadian trivia time: what did "Assa." stand for?

Laura Halliday VA3LDH "Que les nuages soient notre
Grid: FN03gs pied a terre..."
 - Hospital/Shafte

Date: Wed, 16 Dec 1998 10:25:55 -0700
From: Brian Kassel <bkassel@dancris.com>
To: qrp-l@lehigh.edu
Subject: [27432] 10M Contest Results
Message-ID: <3677ED23.4614AE89@dancris.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Gangue:

Well, once again (still?) I'm amazed at the "power" of QRP.

I used my Argosy II Digital radio at 5W.

Antenna: 3 EL tribander up about 30 Feet.

Compaq LTE/LITE 386 notebook, TR software, very old version.

Hours of operation: About 18.

Worked only CW.

I never once called CQ, only search and pounce (S&P).

Claimed score:

366 QSO's 49 Domestic, 17 DX multipliers = 97,944 points

Comments:

I was amazed at how easy it was to work stations. I found myself constantly checking my power out to ensure 5W. Even after many years of QRP, I couldn't believe my ongoing results. Also, worked many stations off the side and off the back of the beam, as Floyd, NQ7X had done and pointed out in a previous post. Of course the usual beacons were there: N4BP, N4ROA etc. My QSO rate got up to 36 for a while. Not bad for S&P only and QRP, plus "very mature" gray cells.

So I MUST remind everyone:

You don't need to spend a lot of time/money to be competitive and have a great time, especially on 10M.

Even with my rather mediocre station, I had a great time.

If I got these results, so can you!

Don't be bashful, get on 10M. Call CQ a lot. Build up your CW speed.

10 Meters and QRP - Life is good.

Brian W5VB0
AZ ScQRPions

Date: 16 Dec 1998 12:24:26 -0500
From: Glen Leinweber <leinwebe@mcmail.cis.McMaster.CA>
To: qrp-l;;
Subject: [27433] Re: Parts: M54563P
Message-ID: <1998Dec16.122426-0500@[130.113.234.7]>

In <v04003a02b29d752ed38d@[12.7.216.14]>, Niel Skousen wrote:

>Hi Gang,
>
>anyone know the proper sub for a Japanese M54563P ? Its a decoder/driver
>which decodes the band selection in my FT747....
>

Niel's problem brings up another problem...finding a website that gives Japanese device DATASHEETS.

Recently, there were some good suggestions about SOURCES for offshore parts. I've got lots of scrapped (offshore) boards with lots of 2SC, 2SD transistors, and some ICs, but have no data to see what applications they're good for. And most Japanese manufacturer websites have no datasheets. Any website suggestions?
Glen VE3DNL leinwebe@mcmaster.ca

Date: Wed, 16 Dec 1998 09:43:29 PST
From: "Brad Hernlem" <alihernlem@hotmail.com>
To: qrp-1@lehigh.edu
Subject: [27434] Hint or Kink: PC Boards
Message-ID: <19981216174329.8630.qmail@hotmail.com>
MIME-Version: 1.0
Content-Type: text/plain

I ran across the following page about using a laser printer for preparing PC boards without expensive paper. The author recommends clay coated paper (aka glossy paper) to get better transfer of toner to the board. I tried it out using just a sheet of paper out of a magazine and it looks very promising. I had a few damaged spots but for a first attempt and no experience with how long to heat the paper or soak it off, I was very impressed.

Brad

see:
<http://members.stratos.net/lawrencemazza/98/3/etch.htm>

Get Your Private, Free Email at <http://www.hotmail.com>

Date: Wed, 16 Dec 1998 18:02:11 +0000
From: Ed Loranger <we6w@qsl.net>
To: qrp-1@lehigh.edu
Subject: [27435] Bad Propagation last night?
Message-ID: <3677F5A3.1D9E@qsl.net>

Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

GM Friends.

Last night after the fox hunt, I was trying to work Fox Vixen Mary on 7110. She listens to 7040 for my Pixie2, and I listen for here at 7110 on my ATS-818 gen coverage rcvr.

Since I'm stuck on the lower 40 we thought it would be fun, especially since I can't work the N/T+ fox until after our move in February and I get the Drake TR-3 Fixed.

Point: Suddenly last night between 0500Z and about 0745Z I noticed the BFO died on my rcvr -- Or something was wrong! (ATS-818 receiver)

This morning all is OK. But last nite the signals contained a low frequency component that was definately on the CW note. This morning the BFO is normal. This was on the 40 meter band. But last nite, the entire 40 meter band had no-tone CW signals. Also this problem didn't appear as I tuned down to WWV and their tic was perfect. I tuned down to 80 meters and my BFO had no problem with signals. But 40 meters was hosed.

So it wasn't my radio as I could see.

Anyone else notice the 40 meter band was distorting all signals? This is not the Long-path watery sounding code. this is different. I also heard this on my OHR-100 which I had temporarily in use for the foxhunt.

Bizaare! Anyone else hear this?

-Ed

--

72, Ed WE6W, A-1 OP; <http://www.qsl.net/we6w> Santa Rosa, CA
QRP-Z#106 QRP-L#1068 AR#112 NC#2227 ARCI#9397 QAA#006

Date: Wed, 16 Dec 1998 12:57:46 -0500
From: "Buck, Preston D" <BuckPD@corning.com>
To: "'qrp-l'" <qrp-l@Lehigh.EDU>
Subject: [27436] Extra Fall QRPP

Message-ID: <62C28BE46356D2118F5D00000F8CD13F14063EB@SILVER.CORNING.COM>
Content-Return: allowed
Mime-Version: 1.0
Content-Type: text/plain

Greetings All,

I got an extra copy of the Fall QRPP from Norcal. First off, what a great magazine!

Secondly, since I have an extra copy, who wants it? And please don't ask for it if you already have it, let's share the wealth.

First come, first serve. Sorry digest readers (I am one too.)

Preston, n0g1m, Southern NY State

My words, not my company's.

Date: Wed, 16 Dec 1998 10:35:09 -0800 (PST)
From: David Kidd <ka7ozo@pacifier.com>
To: qrp-l@Lehigh.EDU
Subject: [27437] Schematic Needed
Message-ID: <v03007801b29d3d25f173@[216.65.146.66]>
Mime-Version: 1.0
Content-Type: text/plain; charset="us-ascii"

I am in need of a schematic for an HTX-100.....I use it mobile for 10m SSB QRP. R/S doesn't have it listed on their web page and after three messages I still haven't been able to get any info on it. I would settle for a good copy and am more than glad to pay for any costs involved.

Thanks.

David
KA7OZO

Date: Wed, 16 Dec 1998 13:39:13 -0500 (EST)
From: Bob Patten <n4bp@bc.seflin.org>

To: "James C. Owen, III" <owen@piper.eeel.nist.gov>
Cc: Low Power Amateur Radio Discussion <qrp-l@Lehigh.EDU>
Subject: [27438] Re: Canadian Prov. PQ in 10m Test ??
Message-ID: <Pine.3.89.9812161350.A21022-0100000@bc.seflin.org>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; CHARSET=US-ASCII

On Wed, 16 Dec 1998, James C. Owen, III wrote:

> contest. SO this means that the sections for the other contest are
> imbedded in the NA.EXE program and I can't easily change them. I got around
>
> If any of you can help in changing sections for the 10M contest in NA for
> the older DOS program please let us know.

Partially correct. Note that the mults in the 10M Contest are NOT
"sections", but rather "states" (plus D.C. and MM R1, R2, R3) and
"provinces". Major difference! NA (newer versions at least) use
ARRL10.MLT for the mult file along with DXCC.CTY. You can easily edit
the ARRL10.MLT file from PQ to QC and AT to AB to indicate the new
abbreviations. As far as I know, no mult list has ever been embedded
in the NA code.

73,

Bob Patten, N4BP (0 0) Plantation, FL
-----o00o-()-o00-----

E-Mail: n4bp@bc.seflin.org
Web Page: <http://wg104a.wh.uni-stuttgart.de/~n4bp>
Brass Pounder BBS: (954) 472-7715

Date: Wed, 16 Dec 1998 13:44:46 EST
From: DENNISMO@aol.com
To: qrp-l@Lehigh.EDU
Subject: [27439] Re: CW
Message-ID: <cc7849db.3677ff9e@aol.com>
Mime-Version: 1.0
Content-type: text/plain; charset=US-ASCII
Content-transfer-encoding: 7bit
Content-Transfer-Encoding: 7bit

Stanford -

Your E-Mail address is not working for me. I tried to send this info to you directly and it bounced back to me.

You can find stations working at about 5 wpm in most Novice/Tech+ bands:

3.675 - 3.725
7.100 - 7.150
21.100 - 21-200

There is a group of Ops that meet at 21.158 and they work slow CW 5-10 wpm. It is the FISTS Slo-Chat. You can find them on freq during the week but the office Slo-Chat time is Sundays at 1700z and 2300z. Also for good code practice you can not do better than the ARRL transmissions by W1AW. See the ARRL web site or QST magazine for schedules.

Hope this info helps. Please feel free to e-mail me if you have any questions about the info here.

73 es God Bless de Denny AD6EZ<><

Date: Wed, 16 Dec 1998 13:53:22 -0500
From: "Buck, Preston D" <BuckPD@corning.com>
To: "'qrp-1'" <qrp-1@Lehigh.EDU>
Subject: [27440] RE: Extra Fall QRPp
Message-ID: <62C28BE46356D2118F5D0000F8CD13F14063ED@SILVER.CORNING.COM>
Content-Return: allowed
Mime-Version: 1.0
Content-Type: text/plain

Greetings all,

Roger (KH7MR) is the lucky fellow getting the extra issue.

Sorry if you missed out.

73
Preston, n0glm, Southern NY State

Date: Wed, 16 Dec 1998 19:02:28 -0000
From: "Mel Evans" <MelGM6JAG@bccscotland.freemove.co.uk>
To: <wb3aal@talon.net>
Cc: <qrp-1@lehigh.edu>

Subject: [27441] Re: RTTY / QRP
Message-ID: <000101be2927\$2dda57e0\$060e883e@default>
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi Ron,

EA8AVR is Antonio from Las Palmas in Gran Canaria. He is membership # 350 in the EA qrp club if he didn't tell you this. I hear him quite a lot on RTTY from the UK.

Regards

Mel
GM6JAG
Edinburgh Scotland UK
Home of the last HW9

EA QRP ~ 88

-----Original Message-----

>Hello,
>
> If you are into RTTY QRP style, there was a EA8AVR/QRP on
>today on 14083.4 using the AFSK mode. I seen a couple of post
>a little while back. Just wanted to let you know the DX run RTTY
>QRP also.
>
>Happy Holidays!
>
>73 & Good DX,
>Ron de WB3AAL wb3aal@talon.net
>
> vvv Eastern PA QRP Web Page vvv
>http://www.kpsnet.com/wb3aal/Start_Page.htm
> Eastern PA QRP #1
> Eastern PA QRP Club Call --> N3EPA
>
>

Date: Wed, 16 Dec 1998 19:26:12 +0000
From: Ed Loranger <we6w@qsl.net>
To: qrp-l@lehigh.edu
Subject: [27442] OHR-100 Drift Project.
Message-ID: <36780954.3FE4@qsl.net>
Mime-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit
Content-Transfer-Encoding: 7bit

Hi gang, a couple of items I didn't have time to clarify since I had to get to work.

The spectrum analyzer has a "Max Hold" feature that stores all maximum signal peak deviations. So there is a very easy to measure line on the CRT which is formed over time while the unit drifts. We are talking, down to the Hertz.

There is no way determine if any of that drift was short or long in duration unless I sat there monitoring the unit.

I currently have the unit partially covered from drafts so that I may measure compensation of the capacitors within the rate to which they can respond. That is, the coil is immediate on drafts, but the capacitors are somewhat slower to respond. Ideally I had wanted to plot frequency change with temperature change, but have discovered I really need a non-drafty, stable temperature chamber to ensure all components are at the same temperature. That would be accurate.

The closer I get to 0 Hz drift per degree temp. change, the more accurate my measurements will become. This keeps troubleshooting time running at a good clip. (As long as the data is valid :)

So am very happy right now and heading in the correct direction.

Gotta run..
-Ed L. "72"

--

72, Ed WE6W, A-1 OP; <http://www.qsl.net/we6w> Santa Rosa, CA
QRP-Z#106 QRP-L#1068 AR#112 NC#2227 ARCI#9397 QAA#006

Date: Wed, 16 Dec 1998 13:20:33 -0600
From: Bob Reynolds <breynold@sigg.com>
To: qrp-l@Lehigh.EDU

Subject: [27443] Backwards Transformers - THANKS
Message-ID: <98Dec16.132626cst.26982@firewall.sigg.com>
Mime-Version: 1.0
Content-Type: text/plain
Content-Disposition: inline

Thanks to all who responded. I feel better
about proceeding with the PS.

73, Red K5V0L

Date: Wed, 16 Dec 1998 11:31:24 -0800 (PST)
From: Ron Stark <ku7y@dri.edu>
To: QRP-L <qrp-l@Lehigh.EDU>
Subject: [27444] 2m Antenna
Message-ID: <Pine.SOL.3.96.981216112802.13255A-1000000@vortex>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

Hi All,

I have a KLM 143-150-14C circular polarized antenna that
I'd like to trade for a HF tribander or.....

Pick up only cuz I'm far too lazy to pull 14 elements off
the boom and ship! :-)

I'm near Reno, NV. Good excuse for a trip to the Biggest
Little in the World!

Thanks for the B/W,

(Email direct for more details)

73, Ron, SOWP 5545M,

.....KU7Y.....ARCI #8829.....Monte "Ron" Stark.....
....ku7y@sage.dri.edu.....Washoe Lake, Nevada....
....QRP-L #17...ARS #49...NorCal #330.....NRA LIFE.....

Date: Wed, 16 Dec 1998 14:40:07 -0600 (CST)
From: Bruce Rattray <rattray@gpfn.sk.ca>
To: QRP-Canada <qrp-canada@lists.gpfn.sk.ca>, Low Power Group <qrp-l@LeHigh.EDU>
Subject: [27445] FOX: Team scores (fwd)
Message-ID: <Pine.LNX.3.95.981216142506.1552A-1000000@neale.gpfn.sk.ca>
MIME-Version: 1.0
Content-Type: TEXT/PLAIN; charset=US-ASCII

....to Bill, K5ZTY - is your contact at 0222Z actually N8VAR instead of
N7VAR?...they're both Rons....please let me know - Bruce - sorry for the
delay as I thought I'd take a few days off and play "flu"...I lost. ;-)

....K5ZTY - fox hunt #19...

The 40 mtr Fox Hunt Team Scores

...the Houston Hounds-13.400-hounds-> W5SB,KQ5U
...the Underdogs - 12.245 - hounds -> N4R0A,KI0II
...the Vibro-Fox Finders - 12.000 - hounds -> WE6W,KU7Y,K2VCO,WS8D
...the Fox Nabbers - 10.235 - hound -> K0EVZ,W0CH
...the Texas Tarantulas - 9.500 - hungry hounds this time.
...the Brass Pounders - 8.500 - hound -> N1FN
...the Kentucky Porch Houndz - 8.500 - a hungry bunch here.
...the Northern Lights - 7.735 - hounds -> VE6EWM,VE5RC,VE2KN
...the Swords - 5.661 - hound -> N8IE
...the Team Apathy - 3.996 - hound -> AB7TT
...the Jersey Diddles - 2.030 - hound -> N2WF

Date: Wed, 16 Dec 1998 12:53:00 -0800 (PST)
From: David J Adams <adamsclan@netgate.net>
To: qrp-l@lehigh.edu
Subject: [27446] Scope for Sale
Message-ID: <199812162053.MAA02994@u1.netgate.net>

Tektronix 2215 50Mhz scope for sale.
Good shape and fully functional. On/Off button sticks a bit.
Best offer. If you are in the SF Bay area, you can come
look at it.

Dave

Date: Wed, 16 Dec 98 17:34:00 -0500
From: Chuck Adams <adams@ticnet.com>
To: qrp <qrp-l@lehigh.edu>
Subject: [27447] Elmer200: Part 4 Hot Stuff
Message-ID: <199812162338.SAA19018@nss4.cc.Lehigh.EDU>

Elmer200: Part 4 December 16th, 1998

Thermodynamics 101

Gang,

I thought that I would heat things up a bit with this discussion just
before getting into details on the Colpitts Oscillator and the crystal
checker. This topic warms my heart. :-) For the humor impaired.
And again, spelling and punctuation etc. will be corrected before
placing on the web page.

First some common terms and some reading assignments.

Reading:

ARRL HB --- 6.7-26, 6.31-42, 10.16-19, 8.16, 27.15
DBHQ --- Capacitors, Inductors, Resistors, ...
Emphasis on temperature coefficients and aging
characteristics of each type of critter.

DBHQ is Paul Harden's book.

Some terms used in thermodynamics and physics and don't hold me to the nitty-gritty here as I'm keeping this at a layman's level. You want differential equations I can deliver, but I don't think we have the time for it.

Thermal contact - two objects are in thermal contact with each other if energy exchange can occur between them in the absence of macroscopic work done by one on the other. They can be separated by a few mm and be in thermal contact due to radiation and convection or say both components are in contact with the PC board which conducts heat or thermal energy between the two.

Thermal equilibrium - occurs when two objects in thermal contact with each other cease to have any net energy exchange due to a difference in their temperatures.

Thermometers - devices used to define and measure the temperature of a system.

Celsius scale - one that is defined by a value of 0 at which water and ice mixture at one atmospheric pressure exists in equilibrium and a value of 100 at which water and water vapor (steam) in equilibrium at one atmosphere exists. This is the system used by everyone in the world but the USofA in daily measurements. The kelvin scale or absolute scale is used by scientists and $T = T(C) + 273.15$ where $T(C)$ is the temperature on the celsius scale. Most coefficients are given with reference to the celsius scale formerly known as the centigrade scale.

OK, now for some general discussion. We all talk about "warm up" time for a rig and drift. Let's nail down what is really happening and some issues associated with same.

As a body of material changes temperature certain physical characteristics may change such as length, width, height, and thus the volume, specific heat, molar heat capacity, thermal conductivity, dielectric constant, sound wave conduction speed, and a whole host of other properties.

A body is said to be isotropic if the physical property being studied changes equally along three independent coordinates. We've seen that some materials such as quartz crystals are not isotropic.

In electronics we are interested in how heat and the resulting temperature affects the values of components such as resistors, capacitors, inductors, transistors, diodes, and other components. We have three basic ways in which to transfer energy and heat from one point to another and they are conduction, convection, and radiation. And hopefully these terms mean something to you and I can skip the physics 101 lecture here, but I can come back if a lot of people don't know this. They all come into play in the operation of a radio transceiver or other radio apparatus.

Let's start with the lowly resistor made of carbon. The resistivity of carbon at 20 degrees C, I'll write as 20 C and hopefully this won't get confusing when we get to capacitors, is $3.5E-5$ ohm-meter. You can use them number to figure out what size resistor to make for a specific value. The temperature coefficient represented by the Greek letter alpha is $-0.5E-3/C$, i.e. it has a negative value and units of one over degree celsius. Where this comes in handy is in the following formula

$$R = R(0) * (1 + \alpha * (T - T(0)))$$

or

$$R = R0 * (1 + \alpha * (T - T0))$$

if you don't like the parentheses, where

$R(0)$ is the resistance at temperature $T(0)$. Now with a negative temperature coefficient as the resistor heats up with current flowing through it we find that it's resistance value goes down. Here is a simple calculation.

$$T(0) = 20 \text{ C}$$

$$R(0) = 50.00 \text{ ohms}$$

then at $T = 35 \text{ C}$ the value of the resistance will be

$$R = 50.00 * (1.00 - 0.5E-3 * (35 - 20)) \text{ or}$$

$$R = 46.25 \text{ ohms.}$$

OK, if you are ahead of the game you can see where there may be a condition of thermal runaway coming where if conditions are right the current increases and more power is being dissipated and more heat and

an increase in the temperature and further decrease in the resistance value and on and on..... Then the smoke detector goes off!!!

OK, let's take the capacitor next. Look on page 6.9 of the ARRL Magical Handbook for Radio Amateurs 1995 or later. You see in formula 23 how to determine the value for a capacitor given the geometry shown. Things that can change value due to changes in temperature are the plate area, the dielectric constant, and the distance between the plates. This would mean that we would have to know the exact coefficients for linear expansion for the plates and the dielectric material, and the thermal coefficient for the dielectric constant of the medium between the plates. This could be messy if you really wanted to do this, but we are given a way out. In Paul Harden's book, DBHQ (Data Handbook for Homebrewers and QRPers), there are coefficients given in ppm (parts per million) for the different types of caps. You use this in the handy formula

$$C = C(0) * (1 + \alpha * 1.0E-6 * (T - T(0)))$$

The important thing to note is that some caps have a positive thermal coefficient, i.e. the value of the cap will increase with increase in temperature, and other capacitor types have negative values for the coefficient.

I leave it as an exercise for the student to figure out just what causes changes in inductors and I'll come back to haunt you with it if you don't do it. :-) Typical teacher, huh?

OK, let's put up a simple example. Let's look at a LC parallel circuit not connected to anything. It has a resonant frequency equal to

$$\omega = 1/\sqrt{LC}$$

where $\omega = 2 * \pi * f$ and L and C are the respective inductance and capacitance values. If we factor in thermal effects we have

$$\omega(T) = 1/\sqrt{L(0) * (1 + a_1 * (T - T(0))) * C(0) * (1 + a_2 * (T - T(0))))}$$

and I won't worry about balancing the parentheses. :-)
And if I get email about this from you, you'll not be happy. :-)
Let it ride, please. Now we have two thermal coefficients, a_1 and a_2 for alpha one and alpha two since this is ASCII.
Doing the arithmetic

$$\omega(T) = 1/\sqrt{LC * (1 + a_1 * (T - T_0) + a_2 * (T - T_0) + a_1 * a_2 * (T - T_0) * (T - T_0))}$$

And if a_1 and a_2 are small we can neglect the last

term and we wind up with the approximation

$$\omega(T)=1/\sqrt{LC*(1+(a1+a2)*(T-T0))}$$

and what people try to do is get $a1+a2$ to equal zero or as close as they can find components that will do it. This would give you a resonant circuit that would hold the frequency as the temperature changes.

Now this is nowhere near real life as an oscillator circuit may have several dozen components in it. Designers and homebrewers spend a lot of time on this problem.

You just have to have a great deal of respect for Dave Benson, Dick Witzke, Dave Fifield, Wayne Burdick, Wes Hayward, Roy Lewellan, and others. They probably spend more time getting an oscillator to not drift than any other part of a design. But that's not all of it gang.

The underlying theme of some recent posts to QRP-L have to do with the scarcity of parts, especially those no longer being manufactured. Pick any kit manufacturer, I don't care, or club. Let's say they need 2,000 NP0 caps at a value of 47pF. Also say this is used in some areas of the design that have some temperature critical parameters and the designer has gotten the circuit to work without drift after many long hours over the soldering iron and prototyping system. They have to be running scared when they send off for an order of thousands of parts from Mouser or DigiKey or Moonlight Parts supply or whoever. They want the same manufacturer that they prototyped with and preferably all manufactured in the same batch from the same plant on the same day.

When I order 5,000 crystals from Bomar I want them all to have the same date stamp and I want them all mfg'd in the same country. Otherwise I have no guarantee (and I still don't even with the stated conditions) that they are all consistent in values and specs.

I'm sure there are a lot of individuals that I have named above and Doug Hendricks and each of us that has gotten parts that are just slightly different than the ones we used before and had to readjust some stuff. They can tell us tales of woe long into the night about chasing down problem parts that they got from some distributor.

And then there is the problem that I worry more about.

The kit manufacturer has got to be worried about how you put together a kit. I have what I call the "3-second" rule, i.e. I do not heat a solder joint or component with the solder iron for more than 3 seconds. Remember that heat kills. I strongly believe that you can influence the quality and value of a component by using too much heat. Especially crystals and capacitors just by the nature of their makeup. And things just happen. Noone is putting the blame on anyone here.

And then there is the experimenter that cut corners by buying a bag of parts out of the back of a trunk at a flea market. Lots of times you don't know the geneology of the parts. Hey, they could be rejects because they failed some quality check at a defense plant or even at the manufacturing plant. Micrometals and others throw away batches of toroids because the mix just didn't work out correctly. Hopefully someone didn't do some dumpster diving and put the batch on the street. Experimenters can work with marginal materials but they wind up with one of a kind. Ever note that Doug and others come up with beta versions to make sure that the kit is reproducible and works within specs? This is a lot of work and a lot of overhead but has to be done in order for the final product to function with variations in parts values, building techniques, and a multitude of other variations. Additional time and expense necessary to have a reasonable chance of getting everything to work right for everyone.

And they have to order all the parts for all the kits at the same to try to insure that they all are reasonably close in quality and characteristics. This doesn't always happen.

OK, this concludes the introduction to thermal effects. As it turns out SPICE can model thermal effects and we'll use it later on in the Elmer205 sections. Stay tuned. This stuff takes time. It's why you pay me the big bucks.....

When someone takes a rig and then uses a technique to change the temperature of hopefully a single component to determine it's effect on the drift of a device they are in effect changing that components value dependent upon its temperature coefficient. This may not be all that useful if the circuit counteracts the effect with an opposing coefficient on another component

in the circuit. One should analyse the circuit carefully and in detail before making a change. IMHO.

Also, all the temperature compensation usually increases the number of components in a circuit to get to a final circuit that is stable over a wide range of frequencies.

There is much yet to discover and discuss, but for now that's it.

OK, some think about it questions.

1. How do I know, when you tell me you measured such and such drift that you did the measurements correctly? Could your counter drift? Did you calibrate it with NIST before, during, and after the test(s)?
 2. What is the difference between accuracy and precision?
 3. What caps have positive thermal coefficients?
 4. What caps have negative thermal coefficients?
 5. What caps have zero temperature coefficients?
 6. How about inductors?
 7. Think about diodes, transistors, and ICs. Hmmm.
 8. How about air flow in the rig? Anyone think about it? Where is the heat generated and where does it go? Is the VFO close to the PA?
 9. What about testing drift without the cover?
 10. What about testing for drift with the cover on the rig?
 11. What rig do you have, kit or otherwise, that has the least drift?
 12. What effects the cap value of a varactor tuned diode? Any thermal effects that could happen?
 13. What good qualities do air variables have that make them so desirable? Why are they hard to find?
 14. Think about those little bitty trimmer caps. You see them all over the place. Do they have a temp coefficient? What happens when you move them? Think about the settling down period. Ever witnessed it or seen it in action?
 15. How about oven controlled circuits? Like those and the additional real estate, costs, power, etc.?
 16. What do you consider a reasonable warmup time? And how far does the drift have to go before you start worrying? Mileage may vary...
-

FYI es enjoy

--

Chuck Adams K5FO adams@ticnet.com CP-60
<http://www.ticnet.com/k5fo>

End of QRP-L Digest 1307

